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EXAMINER	
DUNWOODY, AARON M	

ART UNIT	PAPER NUMBER
3679	

DATE MAILED: 02/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

JE

Office Action Summary	Application No.	Applicant(s)	
	09/753,122	PROCTOR ET AL.	
	Examiner	Art Unit	
	Aaron M Dunwoody	3679	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 November 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12,19-29,31-35 and 37-52* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12,19-29,31-35 and 37-52* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 41-45, 47 and 51 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 41 recites, "where said first duct with said flexible seal disposed in its annular recess is not operatively joined to the second duct". Support for this new matter cannot be found in the disclosure as originally filed.

Claims 43, 47 and 51 recite, "stretch fit"; however, support for this new matter cannot be found in the disclosure as originally filed.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 41-45 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 41 recites, "where said first duct with said flexible seal disposed in its annular recess is not operatively joined to the second duct"; however, it is not clear to the Examiner what this statement means.

Claims 43, 47 and 51 recite, "stretch fit"; however, it is not clear to the Examiner what this statement means.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 6-10,12,19-29,31-35 and 37-52 are rejected under 35 U.S.C. 102(b) as being anticipated by US patent 5326138, Claes et al.

In regards to claim 1, Claes et al discloses a duct joining system, comprising:

a first duct (B) having a male end;

a flexible seal and locking mechanism (30) retained on the male end of the first duct; and

a second duct (C) having a female end having a first cross sectional area and a first bead of a second cross sectional area that is greater than the first cross sectional area, whereby upon sliding the female end over the male end to where the flexible seal and locking mechanism is aligned with the first bead, the flexible seal and locking mechanism expands into the first bead to form both a seal and a mechanical lock that

provides resistance to the separation of the first duct and the second duct greater than a resistance to the joining of the first duct and the second duct.

In regards to claim 2, Claes et al discloses the flexible seal and locking mechanism being a flexible gasket hold on the male end at an angle relative to normal and away from the end of the first duct.

In regards to claim 3, Claes et al discloses the resistance to the separation, of the first duct and the second duct being at least three times greater than the resistance to the joining of the first duct and the second duct.

In regards to claim 4, Claes et al discloses a second bead positioned after the flexible seal and locking mechanism that acts as a stop bead to ensure the second duct is properly positioned with the first duct when the first duct and the second duct are joined.

In regards to claim 6, Claes et al discloses one of the first duct and the second duct being a fitting.

In regards to claim 7, Claes et al discloses a duct joining system comprising:

a first duct having a female end;

a flexible seal and locking mechanism retained within the female end of the first duct; and

a second duct having a male end having a first cross sectional area and a first bead of a second cross sectional area that is less than the first cross sectional arcs, whereby upon sliding the female end over the male end to where the flexible seal and locking mechanism is aligned with the first bead, the flexible seal and locking

mechanism expands into the first bead to form both a scat and a mechanical lock that provides resistance to the separation of the first duct and the second duct greater than a resistance to the joining of the first duct and the second duct.

In regards to claim 8, Claes et al discloses the flexible seal and locking mechanism being a flexible gasket held on the female end at an angle relative to normal and away from the end of the first duct.

In regards to claim 9, Claes et al discloses the resistance to the separation of the first duct and the second duct being at least three times greater than the resistance to the joining of the first duct and the second duct.

In regards to claim 10, Claes et al discloses a second bead positioned after the flexible seat and locking mechanism that acts as a stop bead to ensure the second duct is properly positioned with the first duct when the first duct and the second duct are joined.

In regards to claim 12, Claes et al discloses one of the first duct and the second duct being a fitting.

In regards to claim 19, Claes et al discloses an apparatus comprising:

a first duct;

a second duct,

wherein a portion of the first duct is inserted into a portion of the second duct; and means for providing a seal and a mechanical connection between the first duct and the second duct when the portion of the fret duct is inserted into a portion of the second duct, wherein the second duct has a raised bead into which the means is seated to form

the seal and the mechanical connection when the portion of the first duct is inserted into the portion of the second duct.

In regards to claim 20, Claes et al discloses the first duct has a depressed bead into which the means being seated to form the seal and the mechanical connection when the portion of the first duct is inserted into the portion of the second duct.

In regards to claim 21, Claes et al discloses the means being a flexible gasket.

In regards to claim 22, Claes et al discloses the first duct having a bead, the flexible gasket being mounted closer to the front of the first duct than the first duct bead, the flexible gasket having an angle relative to normal of the first duct.

In regards to claim 23, Claes et al discloses the first bead comprising a circumferential groove in the second duct that has the second cross sectional, and the flexible seal and locking mechanism expands into the circumferential groove to form both a seal and a mechanical lock that provides resistance to the separation of the first duct and the second duct greater than the resistance to the joining of the first duct and the second duct.

In regards to claim 24, Claes et al discloses the flexible seal and locking mechanism comprising a member that expands into the second bead, the member being a substantially triangular shape.

In regards to claim 25, Claes et al discloses the first bead comprising a circumferential groove in the second duct, and the flexible seal and locking mechanism expands into the circumferential groove to form both a seal and a mechanical lock that

provides resistance to the separation of the first duct and the second duct greater than the resistance to the joining of the first duct and the second duct.

In regards to claim 26, Claes et al discloses the flexible seal and locking mechanism comprising a member that expands into the second bead, the member being substantially triangular is shape.

In regards to claim 27, Claes et al discloses a duct joining system comprising:

a first duct including a member disposed on an exterior surface of the first duct about a cross-section thereof; and

a second duct including a groove extending outward from an interior surface of the second duct about a cross-section thereof, whereby upon sliding the second duct over the first duct until the member is in the groove a seal and a resistance to a separation of the first duct and the second duct greater than a resistance to the insertion of the first duct into the second duct is provided by the member and the groove.

In regards to claim 28, Claes et al discloses the member comprising a flexible gasket that is at an angle relative to a normal of the first duct.

In regards to claim 29, Claes et al discloses a stop bead on the exterior surface of the first duct.

In regards to claim 31, Claes et al discloses one of the first duct and the second duct being a fitting.

In regards to claim 32, Claes et al discloses a duct joining system comprising:

a first duct including a member on an exterior surface thereof, the member having a height from the exterior surface; and

a second duct including a groove extending outward from an internal surface thereof, the groove having, a depth from an interior surface thereof, wherein the depth of the groove and the height of the member are selected so that upon sliding the second duet over the first duct until the member is in the groove, a seal and a resistance to a separation of the first duct and the second duct greater than a resistance to the insertion of the first duct and the second duct is provided by the member and the groove.

In regards to claim 33, Claes et al discloses the groove comprising a circumferential groove, and the member flexes into the circumferential groove to form both a seal and a mechanical lock that provides the resistance to the separation of the first duct and the second duct greater than the resistance to the insertion of the first duct into the second duct.

In regards to claim 34, Claes et al discloses the member comprising a flexible gasket that is at an angle relative to a normal of the first duct.

In regards to claim 35, Claes et al discloses the member flexing into the groove.

In regards to claim 37, Claes et al discloses one of the first duct and the second duct being a fitting.

In regards to claim 38, Claes et al discloses the means being carried by the portion of the first duct.

In regards to claim 39, Claes et al discloses a duct joining system comprising:

a first duct;

a member on an exterior surface of the first duct; and

a second duct including a groove extending outward from an internal surface thereof, wherein the groove and member are configured to form a seal and a resistance to separation of the first and second ducts greater than a resistance to the insertion of the first duct and the second duct upon insertion of the first duct into the second duct to a position where the member is in the groove.

In regards to claim 40, Claes et al discloses the member being a flexible gasket.

In regards to claim 41, as best understood, Claes et al discloses a duct joining system comprising a first duct having an annular recess and a flexible seal disposed therein and a second duct having an annular recess, the system having an unassembled state, where the first duct with the flexible seal disposed in its annular recess is not operatively joined to the second duct, and an assembled state where a portion of one of the first and second ducts is in the other of the first and second ducts and the flexible seal is seated in both the first duct annular recess and the second duct annular recess so tbat it forms a seal and lock between the furst and second ducts.

In regards to claim 42, as best understood, Claes et al discloses when in the assembled state, the flexible seal forms both a seal and a mechanical lock that provides resistance to the separation of the first duct and the second duct greater than a resistance to the joining of the first duct and the second duct.

In regards to claim 43, as best understood, Claes et al discloses the flexible seal being a flexible gasket, which is stretch fit in the first duct annular recess.

In regards to claim 44, as best understood, Claes et al discloses the first duct having an end adapted to be received in the second duct and the flexible seal

comprising a V-shaped flexible gasket having first and second arms, wherein when in the assembled state, the first area is disposed in the first duct annular recess and the second arm has a portion disposed in the second duct annular recess, the second arm extending away from the end of the first duct.

In regards to claim 45, Claes et al discloses a duct joining system comprising a fist duct having a recess and a flexible seal disposed therein and a second duct having a recess, whereby upon introducing the first duct into the second duct to where the flexible seal is aligned with the second duct recess, the flexible seal extends into the second duct recess to form both a seal and a mechanical lock that provides resistance to the separation of the first duct and the second duct greater than a resistance to the joining of the first duct and the second duct.

In regards to claim 46, Claes et al discloses the flexible seal being annular.

In regards to claim 47, as best understood, Claes et al discloses the flexible seat is a flexible gasket, which is stretch fit in the first duct annular recess.

In regards to claim 48, Claes et al discloses the first duct having an end adapted to be received in the second duct and the flexible seal comprises a V-shaped flexible gasket having first and second ante, wherein when in the assembled state, the first arm is disposed in the first duct annular recess and the second arm has a portion disposed in the second duct annular recess, the second arm extending away from the end of the first duct.

In regards to claim 49, Claes et al discloses a duct joining system comprising first and second ducts and a flexible seal having first and second portions, the first duct

having a recess adapted to receive the first portion of the flexible seal, the second duct having a recess adapted to receive the second portion of the flexible seal upon introducing the first duct into the second duct with the flexible seal disposed in the first duct recess to where the flexible seal is aligned with the second duct recess, the flexible seal configured to extend into the second duct recess and form both a seal and a mechanical lock that provides resistance to the separation of the first duct and the second duct greater than a resistance to the joining of the fast duct and the second duct upon introducing the first duct into the second duct with the flexible seal disposed in the first duct recess to where the flexible seal is aligned with the second duct recess.

In regards to claim 50, Claes et al discloses the flexible seal being annular.

In regards to claim 51, as best understood, Claes et al discloses the flexible seal being a flexible gasket, which is stretch fit in the first duct annular recess.

In regards to claim 52, Claes et al discloses the first duct has an end adapted to be received in the second duct and the flexible seal comprises a V-shaped flexible gasket having first and second anus, wherein when in the assembled state, the first arm is disposed in the first duct annular recess and the second arm has a portion disposed in the second duct annular recess, the second army extending away from the end of the first duct.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 5 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Claes et al.

In regards to claims 5 and 11, Claes et al discloses the claimed invention except for the third bead has a diameter that is less than the diameter of the second bead. It would have been an obvious matter of design choice to fabricate the third bead has a diameter that is less than the diameter of the second bead, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955).

Response to Arguments

Applicant's arguments with respect to claims above have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure because it illustrates the inventive concept of the invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron M Dunwoody whose telephone number is 703-306-3436. The examiner can normally be reached on 7:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P Stodola can be reached on 703-306-5771. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Aaron M Dunwoody
Examiner
Art Unit 3679

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